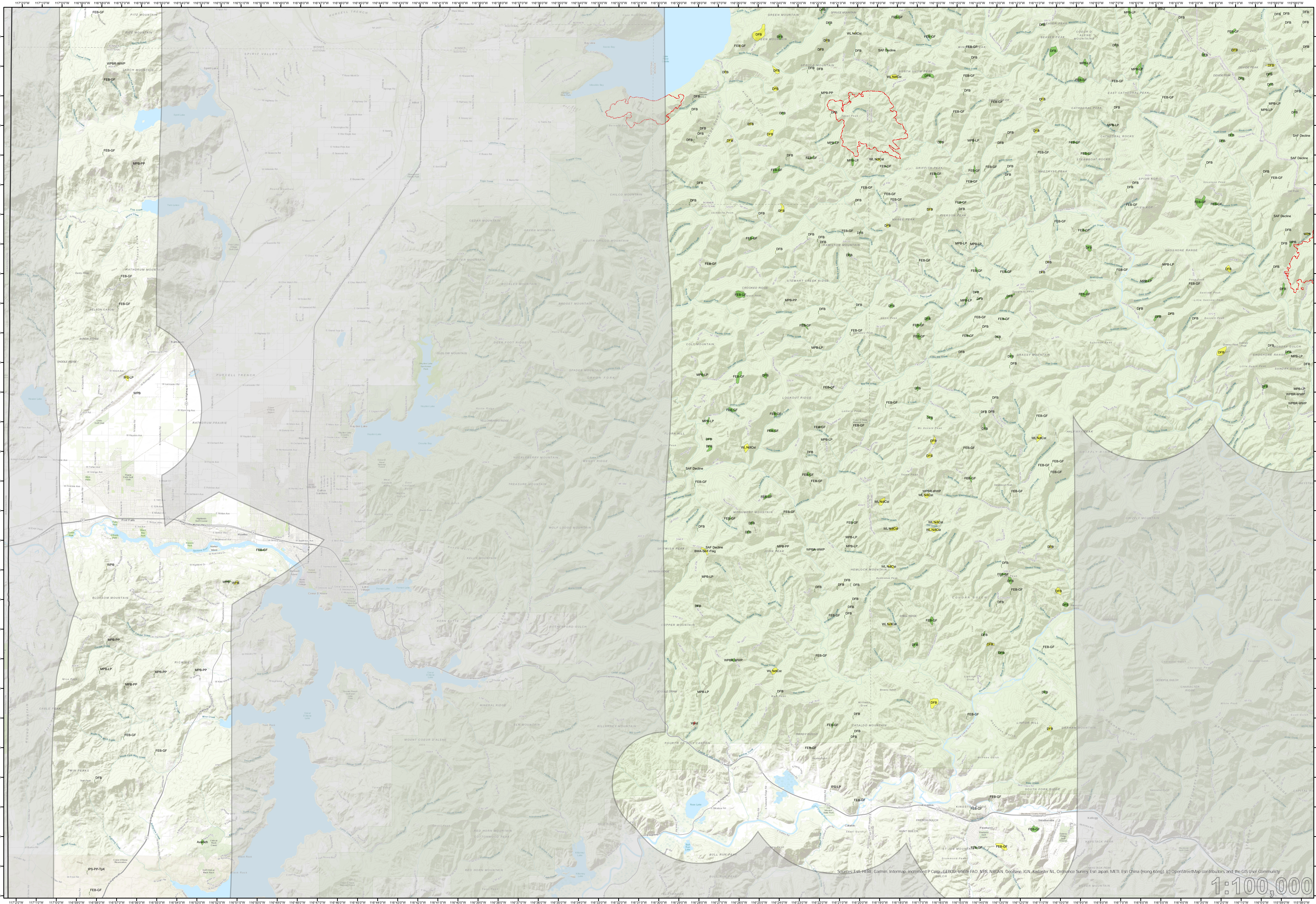


# 2021 Aerial Insect and Disease Survey Coeur d'Alene, Idaho



**Damage Points**  
Number of Trees  
( 1 - 5  
( 6 - 30  
( > 30

**Damage Polygons**  
Percent Affected  
Light (1-10%)  
Moderate (11-50%)  
Severe (>50%)  
Outside ADS Survey Area  
Fire Perimeters (2018 - 2020)

**CODING SYSTEM**  
Codes have two parts: the first represents the causal agent and the second represents the host. If needed, the two-part code is followed by an 'M' or 'H' to indicate severity of the activity. Data is color coded to represent the intensity of activity as seen in the legend. Examples:  
**MPB-LP** represents mountain pine beetle in Lodgepole pine.  
**WSB-DF/SAF-H** represents western spruce budworm infestation in subalpine fir/Douglas-fir mix with >75% of leaves defoliated.

Abiotic Causal Agent Codes	
Avalch	Avalanche
Drght	Drought
Flood	Flooding/High water
Wind	Wind

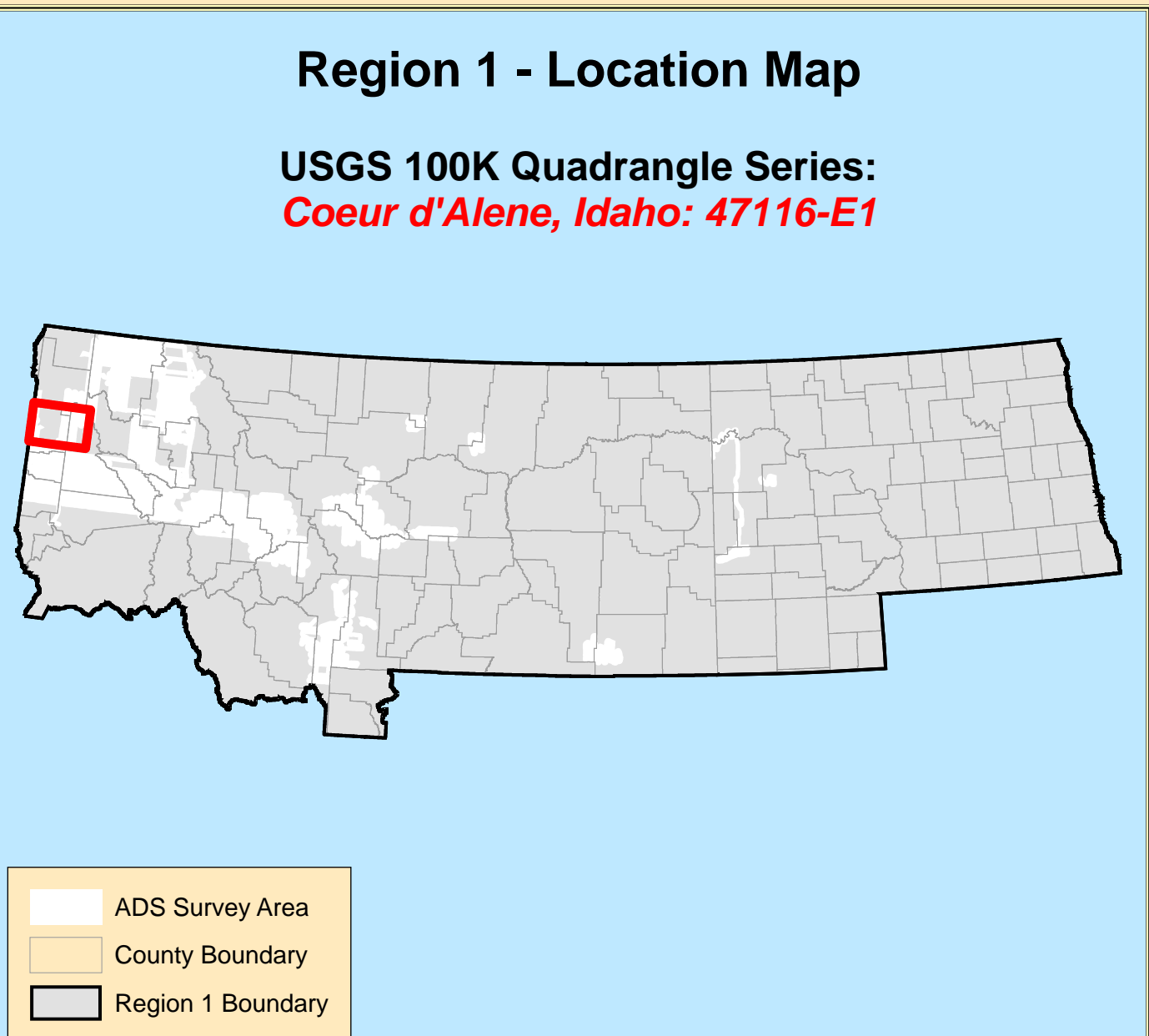
Bark Beetles Causal Agent Codes	
DFB	Douglas-Fir Beetle
ESB	Engelmann Spruce Beetle
FEB	Fir Engorfer Beetle
IPS	Pine Engraver Beetle
MPS	Mountain Pine Beetle
WPS	Western Pine Beetle

Defoliators Causal Agent Codes	
BWA	Balsam Woolly Adelgid
DFTM	Douglas-Fir Tussock Moth
WSB	Western Spruce Budworm

Disease Causal Agent Codes	
Lopho	Lophodermella Needle Cast (LP)
SAF Decline	Sub Alpine Fir Decline
SCI	Scale Insects
WLN/LLI Cst	Western Larch Needle Cast
WPBR	White Pine Blister Rust

Host Codes	
ASH	Green Ash
ASP	Aspen
CRD	Western Redcedar
CON	Unknown Conifer
COT	Eastern Cot onwood
GF	Grand Fir
JUN	California, Western, Utah, & Rocky Mountain Juniper
LIM/WBP	Lumber Pine / Whitebark Pine
LP	Lodgepole Pine
PP	Ponderosa Pine
SP	Subalpine Fir
WVL	Western Larch
WWP	Western White Pine

Miscellaneous	
Defol	Defoliation
Dieback	Dieback
Disc	Crown Discoloration
Flag	Flagging
HT	Defoliation - Heavy (> 75% of leaves defoliated)
M	Defoliation - Moderate (50-75% of leaves defoliated)
Mort	Mortality
Topk	Top Kill



**HOW THE AERIAL SURVEYS ARE CONDUCTED**  
Data represented on this map are based on trees visibly affected by forest insects, diseases and abiotic factors that are detected and recorded by observers during aerial survey flights. These flights are conducted by a joint partnership between the USDA Forest Service and state cooperators.  
Observers have just a few seconds to recognize characteristic signatures of healthy and damaged trees of different species, correctly diagnose damage causal agents, estimate the intensity or extent of damage, and precisely record information on a digital sketch mapping platform. Air turbulence, cloud shadow, haze, smoke, and observer experience can affect the quality of the survey. These sketchmaps and the resultant data summaries provide an estimate of conditions on the ground, and may differ from estimates derived by other methods.  
Annual aerial surveys provide important information on the current status of detected causal agents and can be used to determine trends in damage levels over time by comparing previous and current survey data over large areas.

**Map Created: 12/15/2021**  
**Projection: UTM NAD83 Zone 11T**  
**Author: R1/R4 FHP GIS, USDA Forest Service**  
A data dictionary and digital copies of this map and the insect and disease data are available at: <https://www.fs.usda.gov/detail/r1/forest-grasslandhealth>

**DIRECT ALL INQUIRIES TO:**  
**USDA FOREST SERVICE REGION 1**  
State and Private Forestry  
Forest Health Protection  
26 Fort Missoula Road  
Missoula, MT 59804  
**USDA FOREST SERVICE REGION 4**  
State and Private Forestry  
Forest Health Protection  
1249 S. Vinnell Way, Suite 200  
Boise, ID 83709

**DISCLAIMER**  
The digital map layer upon which the insect and disease data are presented vary in both source and scale, therefore, accuracy is not guaranteed.  
The insect and disease data should be used only as an indicator of insect and disease activity, and should be ground-truthed for actual location and causal agent. Polygons indicate locations of tree mortality, defoliation, and/or other damage. Intensity of damage is variable, and not all trees and areas indicated are dead or damaged. The joint cooperators reserve the right to correct, modify, update, or replace the data as necessary. Using this data for purposes other than those for which it was intended may yield inaccurate or misleading results.